



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,771	09/24/2003	E. Stuart Savage	TETRP040CIP	4365
37334	7590	11/28/2005	EXAMINER	
D'AMBROSIO & ASSOCIATES, P.L.L.C.			CINTINS, IVARS C	
10260 WESTHEIMER			ART UNIT	
SUITE 465			PAPER NUMBER	
HOUSTON, TX 77042			1724	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/669,771  
Filing Date: September 24, 2003  
Appellant(s): SAVAGE ET AL.

**MAILED**

NOV 28 2005

**GROUP 1700**

Jo Katherine D'Ambrosio  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed August 25, 2005 appealing from the Office  
action mailed January 11, 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The Appellant's statement of the status of amendments after final rejection contained in the brief is not entirely correct. An amendment after final rejection was filed on April 11, 2005, but this amendment was denied entry for the reasons given in the advisory action dated May 10, 2005.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The Appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows: Claims 1-5, 8 and 15 stand rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nebolsine (U.S. Patent No. 4,128,477).

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

<b>4,128,477</b>	<b>Nebolsine</b>	<b>12/1978</b>
<b>5,156,738</b>	<b>Maxson</b>	<b>10/1992</b>

**(9) Grounds of Rejection**

The following grounds of rejection are applicable to the appealed claims:

Claims 1-5, 8 and 15 stand rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nebolsine. See col. 1, lines 6, 11 and 35; col. 2, line 31; col. 3, line 2; col. 4, lines 2-3, 35-37 and 53-54; col. 6, lines 19-21 and 35-38; col. 7, lines 10-11, 14, 23-24, 50-56 and 61; col. 8, lines 21-23; and col. 9, lines 17-19.

Claims 6, 7, 9-14 and 16-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Nebolsine in view of Maxson. Nebolsine discloses the claimed invention with the exception of the flow rates of the backwash fluids (claims 6, 7, 12, 13, 18 and 19), the air only backwash treatment (claims 9-11), the duration of the backwash treatment (claims 14 and 20), and the frequency of the backwash treatment (claims 16-23). Maxson discloses backwashing a filter bed with a simultaneous air-water cycle between separate air and water cycles (col. 1, lines 33-35), and further teaches backwashing at the recited flow rates (col. 1, lines 20, 28 and 32), for the recited duration of time (col. 1, line 25), at the recited frequency (col. 1, lines 24-25). It would have been obvious to one of ordinary skill in the art at the time the invention was made to backwash the filter bed of Nebolsine in the manner taught by Maxson, in order to thoroughly remove filtered contaminants from this primary reference filter, thereby allowing it to be reused.

**(10) Response to Argument**

Initially, it should be noted that Appellant has failed to separately argue claims 1-5, 8 and 15, which Appellant has grouped together, and has therefore waived any requirement that the Board must consider the patentability of any grouped claim separately. Accordingly, it is suggested that claim 1 be selected to decide the appeal with respect to the group of claims 1-5, 8 and 15.

Appellant argues that Nebolsine does not disclose a deep bed filter for processing raw, untreated wastewater without any prior processing, pointing out that this reference teaches multiple pre-treatments of wastewater, including a narrow screening operation, prior to delivering the wastewater to a deep bed filter (pages 5-8 of the brief). This argument should not be deemed persuasive of patentability by the Board of Appeals. Claim 1 requires piping raw, unsettled wastewater “directly” to a deep bed filter, without pretreatment in a facultative zone; filtering this wastewater with the deep bed filter; and backwashing the deep bed filter. The Nebolsine process carries out all of these recited steps. Raw unsettled (see col. 7, lines 10-11) wastewater is piped to, and filtered through, a deep bed filter (col. 3, line 2) without any pretreatment in a facultative zone, and the deep bed filter is periodically cleansed by backwashing (col. 7, line 61). The term “directly,” based on a reading of Appellant’s disclosure, has been interpreted to permit some pre-treatment steps, so long as these pre-treatment steps do not involve settling or facultative zone treatment. The grit removal treatment of Nebolsine (Fig. 1, element 3) is not deemed to be precluded by the term “directly,” since Appellant’s recited process also employs this type of pre-treatment (see claim 3). Similarly, the supernatant liquid addition of Nebolsine (col. 6, lines 35-38) is not deemed to be precluded by the term “directly,”

Art Unit: 1724

since Appellant's recited process also employs a similar diluent addition (see claim 4). The screening treatment of Nebolsine (Fig. 1, element 5) is also not deemed to be precluded by the term "directly," since Appellant's recited process also employs a screening pre-treatment (see claim 2). Accordingly, it is submitted that Appellant's definition of the term "directly" allows for all of the pre-treatments employed by Nebolsine; and therefore, claims 1-5, 8 and 15 are clearly anticipated by this reference.

With respect to the rejection of claims 6, 7, 9-14 and 16-23, based on Nebolsine in view of Maxson, Appellant argues that neither reference teaches a process for direct filtration of wastewater (paragraph bridging pages 10 and 11 of the brief). Again, this argument should not be deemed persuasive by the Board of Appeals since Nebolsine discloses "direct" filtration of wastewater by Appellant's definition of this term, as explained above.

Appellant also argues that it would not have been obvious to backwash the deep bed filter of Nebolsine in the manner taught by Maxson (i.e. with an air only backwashing step) because Nebolsine's purpose of the addition of air is to increase the level of dissolved oxygen in the filtrate discharged into the environment. Again, this argument should not be deemed persuasive by the Board of Appeals. Since Nebolsine clearly utilizes both water and air to backwash the deep bed filter (see col. 7, line 61), and since Maxson teaches that a filter bed can be backwashed by a combination of only air, only water, and air-water treatments (see col. 1, lines 30-35), it would have been obvious to one of ordinary skill in the liquid filtration art to backwash the filter bed of Nebolsine in the manner taught by Maxson, in order to thoroughly remove filtered contaminants from this primary reference filter, thereby allowing it to be reused.

Art Unit: 1724

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

  
Ivars C. Cintins

Conferees:

  
Duane Smith

  
Steven Griffin